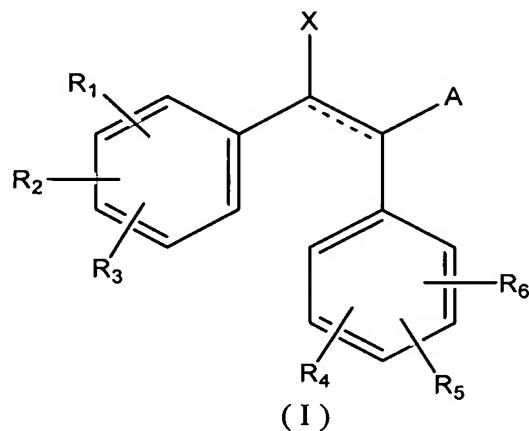


Amendments to the Claims:

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1-42. (Cancelled).

43. (New) A compound of the formula 1:



wherein the bond represented by the dotted line may be an optional bond, and the geometry across the resulting double bond may be in the E- or Z- configuration;

A represents -COOR₈ or -CONR₉R₁₀;

R₈ represents C₁-C₂₀ linear or branched alkyl; aryl; or arylalkyl;

R₉ represents C₁-C₂₀ linear or branched alkyl; or aryl;

R₁₀ represents a hydrogen atom; C₁-C₂₀ linear or branched alkyl; or aryl;

X represents a hydrogen atom; -OH; C₁-C₁₀ linear or branched alkyl groups, optionally substituted with -COOR, carbonyl, or a halogen atom; or C₂-C₁₀ linear or branched alkenyl groups, optionally substituted with -COOR, carbonyl, or a halogen atom;

R independently represents a hydrogen atom; C₁-C₂₀ linear or branched alkyl; aryl; aralkyl; or a pharmaceutically acceptable counter-ion;

R_1 represents C_1 - C_{20} linear or branched alkyl; C_2 - C_{20} linear or branched alkenyl; -COOR; -NR'R"; -CONR'R"; -OH; C_1 - C_{20} alkoxy; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkoxycarbonyl; a halogen atom; -SO₂R"; -CZ₃; or -SR";

R' and R'' independently represents a hydrogen atom; C_1 - C_{20} linear or branched alkyl; or aryl;

each Z independently represents a hydrogen atom; a halogen atom; alkyl; chloro-substituted alkyl; or fluoro-substituted alkyl;

R''' independently represents a hydrogen atom; or C_1 - C_{20} linear or branched alkyl;

R_2 and R_3 independently represents a hydrogen atom; C_1 - C_{20} linear or branched alkyl; C_2 - C_{20} linear or branched alkenyl; -COOR; -NR'R"; -CONR'R"; -OH; C_1 - C_{20} alkoxy; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkoxycarbonyl; a halogen atom; -NO₂; -SO₂R"; -CZ₃; -SR"; or R_2 and R_3 together may be joined to form methylenedioxy or ethylenedioxy groups;

R_4 represents C_1 - C_{20} linear or branched alkyl; C_2 - C_{20} linear or branched alkenyl; -COOR; -NR'R"; -CONR'R"; -OH; C_1 - C_{20} alkoxy; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkoxycarbonyl; a halogen atom; -SO₂R"; -CZ₃; or -SR";

R_5 and R_6 independently represents a hydrogen atom; C_1 - C_{20} linear or branched alkyl; C_2 - C_{20} linear or branched alkenyl; -COOR; -NR'R"; -CONR'R"; -OH; C_1 - C_{20} alkoxy; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkoxycarbonyl; a halogen atom; -SO₂R"; -CZ₃; -SR"; or R_5 and R_6 together may be joined to form methylenedioxy or ethylenedioxy groups;

or R_1 , R_2 , R_3 , R_4 , R_5 , and R_6 independently represents C_1 - C_{20} alkanoyl of the form COQ wherein Q represents an alkyl or aryl group;

with the proviso that when A represents -COOR₈ and R_4 , R_5 , and/or R_6 represents a halogen atom, the bond represented by the dotted line is present resulting in a double bond, and

with the further proviso that when A represents -COOR₈, then X represents a hydrogen atom or -OH.

44. (New) A pharmaceutical composition for the treatment of diabetes, comprising:
a therapeutically effective amount of a compound of claim 43, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.
45. (New) A composition according to claim 44 which is suitable for oral administration.
46. (New) The compound of claim 43, wherein A represents -COOR₈.
47. (New) A pharmaceutical composition for the treatment of diabetes, comprising:
a therapeutically effective amount of a compound of claim 46, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.
48. (New) A composition according to claim 47 which is suitable for oral administration.
49. (New) The compound of claim 46, wherein R₈ represents a methyl group.
50. (New) The compound of claim 46, wherein:
R₁, R₄ and R₆ each represents a hydrogen atom;
R₅ represents -OH in the 4-position;
R₂ represents a methoxy group in the 3-position; and
R₃ represents a methoxy group in the 5-position.
51. (New) The compound of claim 49, wherein:
R₁, R₄ and R₆ each represents a hydrogen atom;
R₅ represents -OH in the 4-position;
R₂ represents a methoxy group in the 3-position; and
R₃ represents a methoxy group in the 5-position.

52. (New) The compound of claim 51, wherein:

X represents a hydrogen atom;
the bond represented by the dotted line is present; and
the resulting double bond is in the E-configuration.

53. (New) The compound of claim 51, wherein:

X represents a hydrogen atom;
the bond represented by the dotted line is present; and
the resulting double bond is in the Z-configuration.

54. (New) A pharmaceutical composition for the treatment of diabetes,
comprising:

a therapeutically effective amount of a compound of claim 50, or a mixture of
compounds thereof, in a pharmaceutically acceptable carrier.

55. (New) A pharmaceutical composition for the treatment of diabetes,
comprising:

a therapeutically effective amount of a compound of claim 51, or a mixture of
compounds thereof, in a pharmaceutically acceptable carrier.

56. (New) A pharmaceutical composition for the treatment of diabetes,
comprising:

a therapeutically effective amount of a compound of claim 52, or a mixture of
compounds thereof, in a pharmaceutically acceptable carrier.

57. (New) A pharmaceutical composition for the treatment of diabetes,
comprising:

a therapeutically effective amount of a compound of claim 53, or a mixture of
compounds thereof, in a pharmaceutically acceptable carrier.

58. (New) The compound of claim 43, wherein:

R₉ and R₁₀ independently represents a C₁-C₂₀ linear or branched alkyl group.

59. (New) A pharmaceutical composition for the treatment of diabetes, comprising:
a therapeutically effective amount of a compound of claim 58, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.
60. (New) A composition according to claim 59 which is suitable for oral administration.
61. (New) The compound of claim 43, wherein:
 R_9 and R_{10} each represents a methyl group.
62. (New) The compound of claim 43, wherein:
 R_1 , R_4 and R_6 each represents a hydrogen atom; and
at least one of R_2 , R_3 , and R_5 represents a C_1 - C_{20} alkoxy group.
63. (New) The compound of claim 43, wherein:
 R_1 , R_4 and R_6 each represents a hydrogen atom;
at least one of R_2 and R_3 represents a C_1 - C_{20} alkoxy group; and
 R_5 represents a -OH group in the 4-position.
64. (New) The compound of claim 61, wherein:
 R_1 , R_4 and R_6 each represents a hydrogen atom;
 R_5 represents -OH in the 4-position;
 R_2 represents a methoxy group in the 3-position; and
 R_3 represents a methoxy group in the 5-position.
65. (New) The compound of claim 61, wherein X represents a hydrogen atom.
66. (New) The compound of claim 64, wherein X represents a hydrogen atom.

67. (New) The compound of claim 66, wherein:

X represents a hydrogen atom;
the bond represented by the dotted line is present; and
the resulting double bond is in the E-configuration.

68. (New) The compound of claim 66, wherein:

X represents a hydrogen atom;
the bond represented by the dotted line is present; and
the resulting double bond is in the Z-configuration.

69. (New) A pharmaceutical composition for the treatment of diabetes, comprising:

a therapeutically effective amount of a compound of claim 64, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.

70. (New) A composition according to claim 69 which is suitable for oral administration.

71. (New) A pharmaceutical composition for the treatment of diabetes, comprising:

a therapeutically effective amount of a compound of claim 67, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.

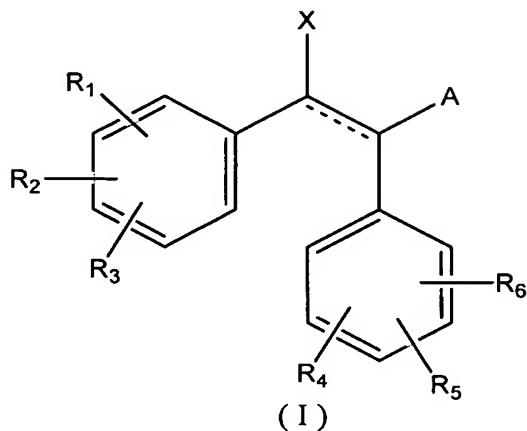
72. (New) A composition according to claim 71 which is suitable for oral administration.

73. (New) A pharmaceutical composition for the treatment of diabetes, comprising:

a therapeutically effective amount of a compound of claim 68, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.

74. (New) A composition according to claim 73 which is suitable for oral administration.

75. (New) A compound of the formula 1:



wherein the bond represented by the dotted line is present, and the geometry across the resulting double bond may be in the E- or Z- configuration;

A represents -COOR₈ or -CONR₁₁R₁₂;

R₈ represents a methyl group;

R₁₁ and R₁₂ independently represents a hydrogen atom; C₁-C₂₀ linear or branched alkyl; or aryl;

X represents a hydrogen atom; -OH; C₁-C₁₀ linear or branched alkyl groups, optionally substituted with -COOR, carbonyl, or a halogen atom; or C₂-C₁₀ linear or branched alkenyl groups, optionally substituted with -COOR, carbonyl, or a halogen atom;

R independently represents a hydrogen atom; C₁-C₂₀ linear or branched alkyl; aryl; aralkyl; or a pharmaceutically acceptable counter-ion;

R₁ represents C₁-C₂₀ linear or branched alkyl; C₂-C₂₀ linear or branched alkenyl; -COOR; -NR'R"; -CONR'R"; -OH; C₁-C₂₀ alkoxy; C₁-C₂₀ acylamino; C₁-C₂₀ acyloxy; C₁-C₂₀ alkoxycarbonyl; a halogen atom; -SO₂R"'; -CZ₃; or -SR";

R' and R" independently represents a hydrogen atom; C₁-C₂₀ linear or branched alkyl; or aryl;

each Z independently represents a hydrogen atom; a halogen atom; alkyl; chloro-substituted alkyl; or fluoro-substituted alkyl;

R^{'''} independently represents a hydrogen atom; C₁-C₂₀ linear or branched alkyl;

R₂ and R₃ independently represents a hydrogen atom; C₁-C₂₀ linear or branched alkyl; C₂-C₂₀ linear or branched alkenyl; -COOR; -NR'R"; -CONR'R"; -OH; C₁-C₂₀ alkoxy; C₁-C₂₀ acylamino; C₁-C₂₀ acyloxy; C₁-C₂₀ alkoxy carbonyl; a halogen atom; -NO₂; -SO₂R"'; -CZ₃; -SR"'; or R₂ and R₃ together may be joined to form methylenedioxy or ethylenedioxy groups;

R₄ represents C₁-C₂₀ linear or branched alkyl; C₂-C₂₀ linear or branched alkenyl; -COOR; -NR'R"; -CONR'R"; -OH; C₁-C₂₀ alkoxy; C₁-C₂₀ acylamino; C₁-C₂₀ acyloxy; C₁-C₂₀ alkoxy carbonyl; a halogen atom; -SO₂R"'; -CZ₃; or -SR";

R₅ and R₆ independently represents a hydrogen atom; C₁-C₂₀ linear or branched alkyl; C₂-C₂₀ linear or branched alkenyl; -COOR; -NR'R"; -CONR'R"; -OH; C₁-C₂₀ alkoxy; C₁-C₂₀ acylamino; C₁-C₂₀ acyloxy; C₁-C₂₀ alkoxy carbonyl; a halogen atom; -SO₂R"'; -CZ₃; -SR"'; or R₅ and R₆ together may be joined to form methylenedioxy or ethylenedioxy groups;

or R₁, R₂, R₃, R₄, R₅, and R₆ independently represents C₁-C₂₀ alkanoyl of the form COQ wherein Q represents an alkyl or aryl group;

with the proviso that when A represents -COOR₈, then X represents a hydrogen atom or -OH.

76. (New) A pharmaceutical composition for the treatment of diabetes, comprising:

a therapeutically effective amount of a compound of claim 75, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.

77. (New) A composition according to claim 76 which is suitable for oral administration.

78. (New) The compound of claim 75, wherein:

R_{11} and R_{12} independently represents a hydrogen atom or C_1 - C_{20} linear or branched alkyl.

79. (New) The compound of claim 75, wherein:

R_{11} and R_{12} independently represents C_1 - C_{20} linear or branched alkyl.

80. (New) The compound of claim 75, wherein:

R_{11} and R_{12} independently represents a hydrogen atom or methyl group.

81. (New) The compound of claim 75, wherein:

R_{11} and R_{12} each represents a methyl group.

82. (New) The compound of claim 75, wherein:

R_1 , R_4 and R_6 each represents a hydrogen atom; and
at least one of R_2 , R_3 , and R_5 represents a C_1 - C_{20} alkoxy group.

83. (New) The compound of claim 75, wherein:

R_1 , R_4 and R_6 each represents a hydrogen atom; and
at least one of R_2 , R_3 , and R_5 represents a -OH group in the 4-position.

84. (New) The compound of claim 81, wherein:

R_1 , R_4 and R_6 each represents a hydrogen atom;
 R_5 represents -OH in the 4-position;
 R_2 represents a methoxy group in the 3-position; and
 R_3 represents a methoxy group in the 5-position.

85. (New) The compound of claim 81, wherein X represents a hydrogen atom.

86. (New) The compound of claim 84, wherein X represents a hydrogen atom.

87. (New) The compound of claim 86, wherein:
X represents a hydrogen atom;
the bond represented by the dotted line is present; and
the resulting double bond is in the E-configuration.
88. (New) The compound of claim 86, wherein:
X represents a hydrogen atom;
the bond represented by the dotted line is present; and
the resulting double bond is in the Z-configuration.
89. (New) A pharmaceutical composition for the treatment of diabetes, comprising:
a therapeutically effective amount of a compound of claim 78, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.
90. (New) A composition according to claim 89 which is suitable for oral administration.
91. (New) A pharmaceutical composition for the treatment of diabetes, comprising:
a therapeutically effective amount of a compound of claim 84, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.
92. (New) A composition according to claim 91 which is suitable for oral administration.
93. (New) A pharmaceutical composition for the treatment of diabetes, comprising:
a therapeutically effective amount of a compound of claim 87, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.

94. (New) A composition according to claim 93 which is suitable for oral administration.

95. (New) A pharmaceutical composition for the treatment of diabetes, comprising:

a therapeutically effective amount of a compound of claim 88, or a mixture of compounds thereof, in a pharmaceutically acceptable carrier.

96. (New) A composition according to claim 95 which is suitable for oral administration.